

REMARKS

In response to the above Office Action, the claims have been amended to avoid the rejection of the claims under 35 U.S.C. §112, first paragraph, to place the claims in product-by-process format and for clarity.

With respect to the §112 rejections, claim 26 has been amended to recite that it is the shell that extends to a depth of 2mm below exterior surfaces of the composite. This is what was originally intended in original claim 4.

Main claim 22, now in product-by-process format, includes the moisture content of the starting wood material. In addition, it includes the combination of the three low, medium, and high temperature initiators from claim 24, and the minimum amounts of each initiator. Support for the moisture content can be found on page 2, line 33 and in original claim 10 and for the amounts of the three initiators in Table 1 on page 5 of the specification. The initiator "1,1'-azobis(cyano-cyclohexane-carbonitrile)" set forth in Table 1 is in error. It should be "1,1'-azobis(cyclohexane-carbonitrile)" as set forth, for example, on page 10, in Table 3, page 11 in Table 4, or page 14, line 19.

It is believed the amended claims avoid all of the rejections under 35 U.S.C. §112, first paragraph, and its withdrawal as a ground of rejection of the claims is therefore requested.

In the Office Action, the Examiner rejected claims 22-25 and 29-31 under 35 U.S.C. §102(b) for being anticipated by Kenaga (U.S. 3,787,344). Claim 26 was rejected under 35 U.S.C. §103(a) for being obvious over Kenaga in view of Maine (U.S. 3,790,401) and claim 27 for being obvious over Kenaga in view of JP74-004922A (Showa). Claim 28 has been cancelled.

In the parent application, now U.S. Patent No. 6,673,395 B2, the Examiner allowed claim 1 over, amongst others, the same references to Kenaga, Maine, and Showa. Now that main claim 22 includes all of the steps of that allowed claim and is drawn to the wood-polymer composite made by that method, it is believed claim 22 and claims 23, 25-27, and 29-31 dependent therefrom should also be patentable over these references.

While Kenaga may disclose impregnating a wood material with a solution of similar polymerizable monomers, a catalyst, and a crosslinking agent and curing the solution in the wood, it does not disclose, inter alia, the claimed initial moisture content of the starting wood material or the use of the specific combination of the claimed low, medium, and high temperature initiators. It is, as noted by the Examiner in paragraphs 7 and 8 of the Office Action, these features that enable Applicant to obtain a wood-polymer composite having a more complete cure of the polymer in the wood and consequently lower vapor emissions and less cracking in the finished product. In this regard, attention is directed to Table 3 and Examples 9-12 and 13-16. These Examples differ from each other in that Examples 9-12 did not use a low temperature initiator but only medium and high initiators, whereas Examples 13-16 used all three. The data shows that Examples 9-12 are inferior with regard to odor, color, and degree of conversion of the polymer in the wood material.

Since these features are not taught or suggested by Kenaga and they result in a product having acknowledged different properties, it is not believed that the wood-polymer composite of claim 22 or of claims 23, 25 or 29-31 dependent therefrom,

are anticipated by this reference. Its withdrawal as a ground of rejection of the claims under §102 is therefore requested.

With respect to claims 26 and 27, these are also dependent on claim 22 and since neither Maine nor Showa disclose what is missing in Kenaga, as discussed above, it is believed these claims should also be patentable over the cited combination of references for the same reasons claim 22 is patentable over Kenaga.

Allowance of claims 22, 23, 25-27, and 29-31 is requested.

In view of the foregoing amendments and remarks, Applicant respectfully requests reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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